

Amendments to the Claims

The following listing of claims replaces all prior amendments and listings of claims.

1. and 2. (Cancelled)
3. (Currently Amended) The electrical brush holder according to Claim ~~2~~ 24,
wherein ~~said fluidic medium comprises a~~ the gas and [[a]] the liquid metal are in pressure-transmitting contact with each other via at least one flexible membrane.
4. (Original) The electrical brush holder according to Claim 3, wherein said pressurized gas is pressurized from a source external to the volume.
5. (Original) The electrical brush holder according to Claim 3, wherein said pressurized gas is entirely confined within the volume.
6. (Currently Amended) The electrical brush holder according to Claim [[1]] 24,
wherein the flexible cable is at least partly located outside of the volume.
7. (Previously Presented) The electrical brush holder according to Claim 6, wherein the flexible cable is completely located inside the volume.
8. (Currently Amended) The electrical brush holder according to Claim 7, wherein said plurality of metal filaments fibers comprise a diameter of less than 51 μm .
9. (Currently Amended) The electrical brush holder according to Claim 7, wherein said plurality of metal filaments fibers each have a diameter of less than 41 μm .
10. (Currently Amended) The electrical brush holder according to Claim 7, wherein said plurality of metal filaments fibers each have a diameter of less than 11 μm .
11. (Currently Amended) The electrical brush holder according to Claim 7, wherein said electrical cable comprises a volume of the liquid metal confined in a flexible tubing.
12. (Currently Amended) The electrical brush holder according to Claim [[1]] 24,
wherein the first plate wall is fastened to the current conducting element via at least one of ~~1~~

a screw, 2) a dove-tail, 3) solder, [[4]]) cement, 5) glue, 6) a magnetic force, 7) a suction ~~exp~~ force, and 8) a bayonet closure.

13. (Currently Amended) The electrical brush holder according to Claim [[1]] 24, wherein at least part of the sidewall comprises at least one of 1) spiral tubing, 2) telescoping tubing, 3) accordion pleated bellows, and [[4]]) flexible plastic sheet material.

14. (Currently Amended) ~~The An~~ electrical brush holder according to Claim 2, ~~further for applying a mechanical force to an electrical fiber or foil brush and for establishing electrical contact between the electrical brush sliding against a substrate, and a current conducting element, comprising:~~

a first wall fastened to the current conducting element;

a second wall releasably fastened to the brush;

a sidewall lengthwise extendable in an axis direction of the brush and cooperating with the first and second walls to form a volume defined by the first wall, the second wall and the sidewall, the brush holder configured to apply an approximately constant pressure to the brush;

a flexible cable comprising of a plurality of ultra-fine metal fibers configured to conduct current between the current conducting element and the brush;

a fluidic medium contained in the volume, the fluidic medium comprising at least one of a liquid metal and a pressurized gas; and

support rods configured to support at least part of the sidewall.

15. (Currently Amended) The electrical brush holder according to Claim [[1]] 24, wherein the second ~~plate~~ ~~wall~~ comprises a wedge-shape ~~in accordance with an intended axis direction of the brush.~~

16. (Currently Amended) The electrical brush holder according to Claim [[1]] 24, wherein the first ~~plate~~ ~~wall~~ is angled relative to the sidewall.

17. (Currently Amended) The electrical brush holder according to Claim [[1]] 24, further comprising:

rigid tubing surrounding the sidewall and configured to guide the second plate wall in the axis direction of the brush.

18. (Currently Amended) The electrical brush holder according to Claim [[1]] 24, further comprising:

a spring disposed between said first and second plates walls and configured to apply a mechanical force to the brush.

19. (Original) The electrical brush holder according to Claim 7, wherein the cable comprises electrical connectors configured to connect the cable to an electrical device.

20. (Canceled)

21. (Currently Amended) The electrical brush holder according to Claim [[1]] 24, wherein the brush is releasably fastened to the second wall via at least one of 1) a screw, 2) a dove-tail, 3) solder, [[4]] cement, 5) glue, 6) a magnetic force, 7) a suction ~~cup~~ force, and 8) a bayonet closure.

22. (Currently Amended) The An electrical brush holder ~~according to Claim 2 for applying a mechanical force to an electrical fiber or foil brush and for establishing electrical contact between the electrical brush sliding against a substrate, and a current conducting element, comprising:~~

a first wall fastened to the current conducting element;

a second wall releasably fastened to the brush;

a sidewall lengthwise extendable in an axis direction of the brush and cooperating with the first and second walls to form a volume defined by the first wall, the second wall and the sidewall, the brush holder configured to apply an approximately constant pressure to the brush;

a flexible cable comprising of a plurality of ultra-fine metal fibers configured to conduct current between the current conducting element and the brush; and
a fluidic medium contained in the volume, the fluidic medium comprising a liquid metal and a pressurized gas, wherein the fluidic medium comprises a the pressurized gas contained in a plurality of flexible membranes surrounded by [[a]] the liquid metal.

23. (Currently Amended) ~~The An electrical brush holder according to Claim 2 for applying a mechanical force to an electrical fiber or foil brush and for establishing electrical contact between the electrical brush sliding against a substrate, and a current conducting element, comprising:~~

a first wall fastened to the current conducting element;
a second wall releasably fastened to the brush;
a sidewall lengthwise extendable in an axis direction of the brush and cooperating with the first and second walls to form a volume defined by the first wall, the second wall and the sidewall, the brush holder configured to apply an approximately constant pressure to the brush;

a flexible cable comprising of a plurality of ultra-fine metal fibers configured to conduct current between the current conducting element and the brush; and
a fluidic medium contained in the volume, the fluidic medium comprising a liquid metal and a pressurized gas, wherein the fluidic medium comprises a the pressurized gas contained in a donut-shaped flexible membrane surrounded by [[a]] the liquid metal.

24. (Currently Amended) ~~The An electrical brush holder according to Claim 2 for applying a mechanical force to an electrical fiber or foil brush and for establishing electrical contact between the electrical brush sliding against a substrate, and a current conducting element, comprising:~~

a first wall fastened to the current conducting element;

a second wall releasably fastened to the brush;

a sidewall lengthwise extendable in an axis direction of the brush and cooperating with the first and second walls to form a volume defined by the first wall, the second wall and the sidewall, the brush holder configured to apply an approximately constant pressure to the brush;

a flexible cable comprising of a plurality of ultra-fine metal fibers configured to conduct current between the current conducting element and the brush; and

a fluidic medium contained in the volume, the fluidic medium comprising a liquid metal and a pressurized gas, wherein the fluidic medium comprises a the pressurized gas contained in a single flexible membrane surrounded by [[a]] the liquid metal.

25. (Currently Amended) The electrical brush holder according to Claim [[1]] 24, further comprising:

at least a third plate wall fastened to at least another brush.

26.-31. (Canceled)